

Amendments to the Claims:

The text of all pending claims, (including withdrawn claims) is set forth below. Canceled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (canceled), (withdrawn), (new), (previously presented), or (not entered).

Applicant reserves the right to pursue any canceled claims at a later date.

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1 – 21 (cancelled)

22. (currently amended) A method for producing a layer system on a component, comprising;

providing a substrate that comprises a recess;

filling the recess with a first material that includes an agent for reducing the melting point of the first material;

applying a second material comprising a metallic material in a region of the filled recess by an intermediate removal heat treatment forming a local coating,

covering ~~at the~~ region of the filled recess with a base coating, the base coating comprising a MCrAlX alloy,

wherein the ~~first material contains an undesirable component that~~ ~~agent~~-adversely affects a property of the base coating if the ~~undesirable component~~ ~~agent~~ diffuses into the base coating ~~thereby making the agent undesirable~~; and

~~applying a second material in the region of the filled recess by an intermediate removal heat treatment forming a local coating,~~

wherein during the removal heat treatment the second material reacts with the first material and extracts the undesirable ~~agenteomponent~~ of the first material to inhibit a diffusion of the undesirable ~~agenteomponent~~ into the base coating.

23. (currently amended) The method as claimed in claim 22, wherein the second material covers the undesirable ~~agente~~~~omponent~~ of the first material in the recess and functions as a diffusion barrier.

24. (currently amended) The method as claimed in claim 22, wherein the second material is removed together with the undesirable ~~agente~~~~omponent~~ which has been removed from the first material after the removal heat treatment and prior to the coating of the substrate by a grinding treatment.

25. (currently amended) The method as claimed in claim 22, wherein the first material is a solder which contains ~~thea~~~~omponent~~ agent for reducing the melting point of the first material ~~as an agent for reducing the melting point as the undesirable component.~~

26. (currently amended) The method as claimed in claim 22, wherein the ~~agent~~~~agent~~ for reducing for reducing the melting point of the first material ~~consists of~~ is boron or a boron containing compound.

27. (previously presented) The method as claimed in claim 22, wherein a soldering heat treatment is carried out using the first material prior to an application of the coating so that the first material bonds to the substrate in the recess.

28. (previously presented) The method as claimed in claim 22, wherein the removal heat treatment is a separate diffusion heat treatment or the soldering heat treatment.

29. (previously presented) The method as claimed in claim 22, wherein the substrate is an iron-base, nickel-base or cobalt-base superalloy, or a ceramic.

30. (currently amended) The method as claimed in claim 22,
~~wherein the base coating is an MCrAlX alloy,~~
wherein for the MCrAlX alloy, M is an element selected from the group
consisting of: Fe, Co and Ni, and
wherein X is yttrium and/or a rare earth element.
31. (previously presented) The method as claimed in claim 22, wherein a thickness of
the local coating with the second material is thinner than the base coating of the component.
32. (previously presented) The method as claimed in claim 22, wherein a surface area
of the local coating with the second material is less than the base coating of the component
33. (previously presented) The method as claimed in claim 22, wherein the second
~~material is selected from the group consisting of: chromium[,] chromium-containing compounds
or alloys, and a material that reacts with the undesirable component of the first material.~~
34. (currently amended) The method as claimed in claim 22, wherein during the
removal heat treatment the second material reacts with the first material and extracts the
undesirable agenteomponent of the first material by forming a compound to inhibit a diffusion of
the undesirable agenteomponent into the base coating.
35. (previously presented) The method as claimed in claim 22, wherein the second
material is applied using a paste, a slurry, or a tape.
36. (previously presented) The method as claimed in claim 22, wherein the
component is a turbine component of a gas turbine or steam turbine.
37. (previously presented) The method as claimed in claim 22, wherein the first
material is a multicomponent material.
38. (canceled)

39. (canceled)

40. (canceled)

41. (canceled)

42. (new) The method as claimed in claim 22, wherein the second material is a chromium-containing compound.

43. (new) The method as claimed in claim 22, wherein the second material is a chromium-containing alloy.